

Title: Global Warming

Topics: <ul style="list-style-type: none">• Students understand global warming and use data and calculations to make predictions about temperature	Time: 2x45	Age: 11-14
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Differentiation: <ul style="list-style-type: none">• Can further develop posters and presentations to explain their solutions about global warming

Guidelines, ICT support etc.: <ul style="list-style-type: none">• Students can use this website to understand climate change http://climate.nasa.gov/interactives/climate-time-machine

Equipment needed for this activity:

- PowerPoint for students
- Optional: Computers to find information online

Required knowledge:

- Basic knowledge of global warming as a mechanism and understanding that CO₂ is emitted by cars and industry
- Basic knowledge on how to read and interpret tables and graphs.

Health and Safety:

None

Learning outcomes for this activity:

- Understand the complexity of the information related to Global Warming and use graphs and data to understand the impact of global warming on the environment(Activity 1)
- Understand the debate surrounding the causes of Global Warming and use data from graphs and tables to explain it. (Activity 1)
- Understand that in an SSI different interest groups will present alternative arguments and will use the available information differently (Activity 2)

Lesson description

Starter Activity/Preliminary work

- **Ask** students to share their initial ideas and views about what global warming is.

Activity 1

- **Analyzing the information on Global Warming:** “*What can you say about global warming?*” :
 - Working in their groups, the students are asked to explain the graphs that are presented to them on the power point presentation, and based on the graphs to explain if global warming is related to human activity or not.
- Students can also use this website to understand more about global warming and climate change: <http://climate.nasa.gov/interactives/climate-time-machine>

Activity 2

- **Elaborating arguments:** “*Let’s make recommendations*”: In **mixed ability** groups, students have to make recommendations for the government regarding a new possible law to reduce Carbon dioxide emissions. **In order** to do this, students will have to:
 - Think about the possible opinions of 3 groups of interest (environmentalist, industry, public).
 - Write the recommendations taking into account the different groups of interest.

Make an oral presentation of their recommendations (2 slides /group)